Phytochemical study on Ziziphora clinopodioides Lam essential oils wild-growing in the Armenian flora and grown up in the conditions of a hydroponics.

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Abstract

The objects of this study are the wildly-growing grass of the species Ziziphora clinopodioides Lam. collected in the flowering phase in April-July 2013 from the mountains of the villages Voghjaberd, Hankavan, Arzakan and the grass Ziziphora cultured in the hydroponic conditions .

For the first time, the numerical characteristics of the merchandising quality control for raw material of the Ziziphora clinopodioides Lam. were defined from wild-growing plants (Voghjaberd, Hankavan, Arzakan) and grown up in a hydroponics.

The highest value of the essential oil yield differs raw material collected in the condition of hydroponics 1.25 ± 0.01%, for the relative density differs raw material collected in the vicinity of the village Hankavan-0.977 ± 0.001, for the refractive index differs raw materials collected in the vicinity of the village Arzakan 1.490 ± 0.003.

The highest values for the total extractive composition /50 ° spirits / and humidity differs raw material collected in Arzakan 29.0 ± 0.01% , 8.8 ± 0.15%, respectively, for the ash - hydroponics 9.1 ± 0.02%.

By the method of gas chromatography-mass spectrometry, the above studied samples revealed for the first time more than 80 components, among which there were the following main components:(±) pulegone (16,62-25,71%),verbenone (7,78-14,33%), eucalyptol (8,94-12,98%), DL (±) menthol (1,48-10,02%), isomenthone (3,42-8,05%), I-menthone (3.53 - 7,02%), D-menthone (5,13-6,85%), DL-carvone (3,18-6,57%), D (±) limonene (1,3-6,47%), thymol (0,73-5,41%).